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9	NORTHERN DISTRIC	CT OF CALIFO	PRNIA
10	SAN JOSE	DIVISION	
11			
12	IP LEARN, LLC,	No.	C 02-02634 JW
13	Plaintiff and Counterdefendant,		PENING BRIEF ON THE
14	v.		CLAIM CONSTRUCTION OF N'S PATENTS
15	SABA SOFTWARE INC.; and DOES 1-10,	Date:	February 7, 2003
16 17	Defendant and Counterclaimant.	Time: Room: Before:	
18	AND RELATED COUNTERCLAIMS.		
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20	SABA'S OPENING CLAIM CONSTRUCTION BRIEF No. C 02-02634 JW sf-1425947		

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In accordance with the Court's November 25, 2002 Scheduling Order, Defendant Saba Software, Inc. ("Saba") hereby submits this opening claim construction brief on selected terms and phrases from the patents asserted by plaintiff IP Learn, LLC ("IP Learn").

#### BACKGROUND

Saba is a provider of learning management systems for businesses. Its products include an integrated, Internet-based platform to manage learning, content, performance, talent, and collaboration in a business. In addition, Saba provides related professional services. Some of Saba's most well-known customers include Amazon.com, Cisco Systems, Ford Motor Company, and Procter & Gamble.

IP Learn is a company founded by Peter P. Tong and Chi Fai Ho. As far as Saba is aware, IP Learn does not have any employees, make any products, or provide any services. IP Learn is in the business of licensing and enforcing the patents on which Messrs. Tong and Ho are listed as inventors.

On May 31, 2002, IP Learn filed the present action against Saba, alleging infringement of U.S. Patent No. 5,779,486 (the "'486 patent"), U.S. Patent No. 5,934,909 (the "'909 patent"), U.S. Patent No. 6,118,973 (the "'973 patent"), and U.S. Patent No. 6,126,448 (the "'448 patent"). On June 7, 2002, IP Learn amended its complaint, adding U.S. Patent No. 6,398,556 (the "'556 patent"), which had just been issued. (The '486 patent, '909 patent, '973 patent, '448 patent, and '556 patent are hereinafter referred to collectively as the "patents in suit.") (*See* Declaration of Frederick S. Chung in Support of Saba's Opening Brief on the Initial Claim Construction of IP Learn's Patents, submitted herewith ("Chung Decl."), Exhs. 1-5.)

Following a review of the patents in suit, Saba concluded that it did not infringe any of them. At the Case Management Conference on November 4, 2002, Saba requested that the customary schedule under the Patent Local Rules be modified to accommodate an early summary judgment motion on noninfringement. The Court stated that Saba could file an early summary judgment motion, but not without first undergoing a preliminary claim construction hearing on some of the claim terms that would form the basis of Saba's motion. The Court asked Saba to identify five potentially dispositive claim terms or phrases for a preliminary claim construction

hearing on February 7, 2003. On November 25, 2002, the Court issued a Revised Scheduling
Order setting forth the schedule for the preliminary claim construction proceeding. (Chung Decl.,
Exh. 6.)
IP Learn served its preliminary infringement contentions on Saba on November 27, 2002,

asserting 117 patent claims against Saba. Thereafter, Saba identified six terms or phrases among the asserted claims to present for preliminary claim construction. These terms and phrases, as well as Saba's proposed constructions, were served on IP Learn on December 4, 2002. (Chung Decl., Exh. 7.) On December 31, 2002, Saba received IP Learn's responsive constructions. (*Id.*, Exh. 8.)

#### DISCUSSION

#### I. LEGAL STANDARDS FOR CLAIM CONSTRUCTION

As the Court is undoubtedly familiar with the general principles of claim construction, they are only briefly reviewed here, with emphasis on the principles that Saba believes are particularly relevant to the construction of the six terms and phrases at issue.

## A. The Primary Source for Claim Construction is the Intrinsic Evidence

Claim construction begins with the intrinsic evidence — *i.e.*, the claims, the patent specification, and the prosecution history — which is the information that is readily available to the public for ascertaining the meaning and scope of a patent. *See Vitronics Corp. v.*Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). If ambiguities remain after considering the intrinsic evidence, the Court may consult evidence beyond the patent and its file history.

Nevertheless, "[i]n most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." *Id.* at 1583.

#### 1. The Claims

First, the Court must look to the "ordinary and customary meaning" of the words of the claims themselves. *Id.* at 1582. Dictionaries play a preeminent role in this determination, and are to be consulted even "before" the "written description and prosecution history." *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002). In *Texas Digital*, the Federal Circuit noted that even though dictionaries have sometimes been categorized as "extrinsic" evidence, labeling them in this manner is "misplaced." *Id.* at 1203. The Court went on to

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characterize dictionaries as "objective," "reliable," and in some cases "the most meaningful sources of information" in arriving at the ordinary and accustomed meaning of claim language. *Id.* "Such dictionaries include dictionaries of the English language, which in most cases will provide the proper definitions and usages, and technical dictionaries, encyclopedias and treatises, which may be used for established specialized meanings in particular fields of art." *Inverness Med.* Switzerland GmbH v. Princeton Biomeditech Corp., 309 F.3d 1365, 1369 (Fed. Cir. 2002).

#### 2. The Specification

Second, the Court should review the patent specification. The Federal Circuit has stated that the specification is "always" highly relevant to claim construction and that it is usually dispositive. Vitronics, 90 F.3d at 1582. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms "by implication." *Id.* 

Although it is improper to read limitations that appear only in the specification into the claims, it is still necessary to read claims "in light of" the specification, notwithstanding the "fine line" between these two types of "reading." Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1331-32 (Fed. Cir. 2001) (quoting Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998)). For instance, if a patentee does not make "varied use" of a claim term in the specification, but instead uses the term throughout the specification in a manner that is consistent with only a *single* meaning, then the patentee "has defined that term by implication." Bell Atlantic Network Servs., Inc. v. Covad Comm. Group Inc., 262 F.3d 1258, 1270-71 (Fed. Cir. 2001) (quoting Vitronics, 90 F.3d at 1582)); see also SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc., 242 F.3d 1337, 1344 (Fed. Cir. 2001) ("the written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format"). This is especially so where the "ordinary meaning" of a non-technical term is so "broad and amorphous that the scope of the claim language can be reconciled only with recourse to the written description." *Bell Atlantic*, 262 F.3d at 1269-70.

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## 3. The Prosecution History

Finally, after reviewing the claims and the specification, the court may consult the prosecution history. *See Vitronics*, 90 F.3d at 1582-83. The prosecution history includes all submissions made to the patent office by the applicant and the patent examiner's responses, including reasons for rejecting and allowing patent claims. In addition, the prosecution history includes the "prior art cited therein." *Id.* at 1583. As explained by the Federal Circuit in *Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357, 1371 n.4 (Fed. Cir. 2002), "[p]rior art cited in the prosecution history falls within the category of intrinsic evidence."

#### **B.** Extrinsic Evidence May Be Consulted To Resolve Ambiguities

If the intrinsic evidence fails to resolve ambiguities in claim terms, the Court may also consult "extrinsic evidence," including expert testimony and prior art that was not cited in the file history. Extrinsic evidence may not be used, however, to contradict a claim construction mandated by the written record of the patent. *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1999).

#### II. THE '486, '909, AND '973 PATENTS

A. The Alleged Invention: The '486, '909, and '973 Patents Claim a Method and System for Generating Recommendations Based on a Student's Test Scores

The '486 patent claims an educational system for assessing a student's understanding in a tested subject, for generating a recommendation based on that assessment, and for generating questions and reports based on that recommendation to enhance the student's understanding. The '909 and '973 patents claim the same subject matter, except that the '909 contains method claims (claiming a "computer-aided learning method") rather than system claims, and the '973 patent claims the same "system" and "method" as they apply in a computer-network environment. The '909 and '973 patents are direct descendants of the '486 patent — with the '909 patent as the "child" of the '486 patent and the '973 patent is the "child" of the '909 patent — and they all share the same specification. These three patents are therefore collectively referred to herein as the "'486 patent family," or "'486 family."

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The apparent purpose of the claimed inventions in the '486 family is to ensure that each student can receive "individually-tailored tests" that have been "generated" based on the student's individual level of understanding. (*E.g.*, '486 patent at 1:66-2:4.) The patents purport to accomplish this by applying "analysis rules" to a student's test scores in order to "generate" the "recommendations," "reports," and "questions." (*Id.* at 6:30-13:67.) In addition, the patents systematically divide the tested subject matter into multiple levels of subcategorization, wherein one of the levels is the "line-item" level, and wherein the analysis takes place primarily on that line-item level.

In choosing the claim terms and phrases to be construed in this preliminary proceeding,

Saba has focused on the terms that appear throughout the asserted claims of the '486 patent

family: "analysis rules," "line-item," "generate . . . recommendation," and "generate . . . report."

# **B.** Interpretation of the Claim Language

#### 1. "line-item"

## (a) Saba's Proposed Construction:

"A subsidiary level of classification in a systemwide taxonomy of areas of learning, whereby areas of learning are divided into (1) 'subjects,' each of which is further subdivided into (2) 'major topics,' each of which is further subdivided into (3) 'minor topics,' each of which is further subdivided into (4) 'line-items,' each of which may have a number of complexity levels."

#### and:

"An item that belongs to the 'line-item' level of classification in the foregoing taxonomy."

The term "line-item," which appears in 28 of the asserted claims of the '486 family, <sup>1</sup> refers to a subsidiary level of classification in the IP Learn system. Areas of learning are divided and subdivided into a systemwide taxonomy. The '486 family discloses four explicit levels of classification: "subjects," which are divided into "major-topics," which are subdivided into

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<sup>&</sup>lt;sup>1</sup> See claims 13, 14, 15, 16, 19, 36, 40, 41, 45, 50, and 54 of the '486 patent, claims 5, 11, 21, 23, 25, 27, and 29 of the '909 patent, and claims 4, 9, 10, 15, 19, 20, 21, 23, 25, and 26 of the '973 patent.

"minor-topics," which are further subdivided into "line-items." (*E.g.*, '468 patent at 3:47-50.) In addition, "[e]ach line-item has a number of complexity levels." (*Id.* at 3:54; *see also id.*, Figure 5.) The example given in the three members of the '486 family is a mathematical one: the "subject" is math, which is "divided into major-topics, such as high school algebra, which is subdivided into minor topics, such as integers, which is further sub-divided into line items, such as addition." (*E.g.*, *id.* at 3:50-56.) The different "complexity levels" for each line-item may include multiplication with two digits, which is "more difficult than multiplying numbers with one [digit]." (*Id.* at 3:55-56.)

Of course, "line-item" refers not only to a particular level within the foregoing classification system, it also refers to an item that belongs to that level. Just as the word "species" can refer to either a subcategory within a taxonomy (e.g., as a subdivision of "genus"), as well as a particular member of that subcategory (e.g., humans), so "line-item" can refer to either the abstract subcategory or a specific embodiment of that subcategory.

In accordance with the general principles of claim construction set forth above, the meaning of "line-item" necessarily comes from the specification, because the term does not have an "ordinary and customary meaning" in the field of computer-assisted learning. *Vitronics*, 90 F.3d at 1582. There are no specialized dictionaries in this field, and the only definition of "line-item" that can be found in a standard, non-technical dictionary is an accounting or legislative one: "an appropriation that is itemized on a separate line in a budget." (Merriam-Webster's Collegiate Dictionary, 10th Ed. (Chung Decl., Exh. 9) at 677.)<sup>2</sup> Given that the specification and claims of the '486 patent family consistently refer to areas of learning that are "divided" into "line-items," this accounting definition is inapt. Further, although the words "line" and "item" have separate non-technical meanings — for example, a "line-item" might be an "item" on a "line" of text (a

<sup>2</sup> The Federal Circuit cites regularly to the Collegiate Dictionary. E.g., Frank's Casing

Crew & Rental Tools, Inc. v. PMR Techs., Ltd., 292 F.3d 1363, 1374 n.8 (Fed Cir. 2002); LNP

Eng'g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347, 1354 (Fed Cir. 2001); Gart v.

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Logitech, Inc., 254 F.3d 1334, 1343 (Fed Cir. 2001)

meaning that is consonant with the legislative definition) — this combination is evidently not what is contemplated by the '486 family of patents.

Because the specification of the '486 family describes "line-item" as a subsidiary level in a taxonomy of areas of learning, and because the specification and claims consistently refer to a system in which areas of learning are "divided" into subsidiary levels such as "line-items," that defines the scope of the term: a subdivision of an area of learning that occupies a subsidiary level in a systemwide taxonomy of areas of learning. *See Vitronics*, 90 F.3d at 1582.

# (b) IP Learn's Responsive Construction:"an item within an area of learning"

IP Learn's responsive construction, "an item within an area of learning," is so broad and amorphous as to cry out for a construction of its own. It sets forth no apparent boundaries for the scope of the claims and appears to try to expand the meaning of "line-item" beyond reason. For example, under IP Learn's construction, a "line-item" could be the same thing as a test "question" — since both may be characterized as "item[s] within an area of learning" — but the claims and specifications of the '486 family make it clear that "line-items" are distinguishable from "questions," and that a "question" is supposed to be a *subset* of a line-item, as well as of a "complexity-level" within that line-item. (*E.g.*, '486 patent at 3:60-4:9; claim 50.) Thus, IP Learn's construction "deprives the claim of clarity such that there is 'no means by which the scope of the claim may be ascertained from the language used." *Bell Atlantic*, 262 F.3d at 1268 (quoting *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999)).

Moreover, IP Learn's position flies in the face of the claim language and specifications in the '486, '909, and '973 patents, which describe a consistent division of areas of learning into prescribed subcategories. In these patents, a "line-item" is not simply a stand-alone "item" in an area of learning; it is a part of a systematic organization and classification of subject matter, wherein everything is divided into "line-items," the "line-items" are ranked according to their "complexity levels," and the process of analyzing test scores and generating recommendations, reports, and questions takes place with this classification and hierarchy in mind. (*E.g.*, '486 patent at 3:54-56; 6:30-11:46.) Each time the "line-item" concept is explained in the '486, '909,

and '973 patents, it is discussed in the context of its relationship to other "line-items" and other learning subcategories, and the analysis of a student's test scores (as discussed below) is explicitly based on an understanding of these relationships. In every single one of the asserted claims, line-items are described vis-à-vis *other* line-items: "with at least one line-item being more difficult than another line-item," or with the line-items organized as part of a "complexity-hierarchy." (*E.g.*, '486 patent, claims 15 & 36.)

In short, both the claims and the specification of the '486 patent family set forth a clear *taxonomy* encompassing "line-items." The presence of this taxonomy is essential to the purpose and operation of the alleged inventions in the '486 patent family, at least whenever "line-items" are involved. IP Learn's proposed construction fails to capture the meaning of "line-item" and should therefore be rejected.

Finally, IP Learn may try to contend that "line-item" does not have to be the *fourth* level or subcategory in the foregoing system and can merely be the second level, with "subject" as the first level. This contention is unpersuasive. First, it runs counter to the prosecution history of the '486 family, in which the inventors cited a prior-art software product that contained a two-level taxonomy, and that otherwise clearly anticipated the claims of the '486 family: the "SuccessMaker Courseware, published by Computer Curriculum Corporation." (*See*, *e.g.*, '486 patent, facepage; SuccessMaker Instructional Management Handbook (1993) (Chung Decl., Exh. 10), at 7 & 13.)<sup>3</sup> The SuccessMaker system analyzed a student's test results and produced recommendations based on those results. In addition, the SuccessMaker software systematically divided subjects (called "skills") into line-items (called "strands"), with some "strands" that were more difficult than other

<sup>&</sup>lt;sup>3</sup> Note: it appears that IP Learn failed to submit the complete documentation regarding this product to the patent examiner — as a result, it appears that the "two-level" taxonomy in the SuccessMaker product, as well as other anticipating features, were not brought to the examiner's attention. Nevertheless, the Court should consider this prior-art product in analyzing the scope of the claims, as it was cited by IP Learn in the prosecution not only of the '486 family, but also of the '448 and '556 patents (discussed further below). In addition, Saba does not offer it here as extrinsic evidence of the linguistic meaning of the phrase "line-item," but rather as prior art that may bear on the validity of the patents in suit. It is well settled that patent claims should be construed narrowly, whenever possible, "to sustain their validity" and to "avoid[] ensnaring prior art." *ACS Hospital Sys., Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577 (Fed. Cir. 1984); *Harris Corp. v. IXYS Corp.*, 114 F.3d 1149, 1153 (Fed. Cir. 1997).

"strands," and it analyzed a student's performance "strand by strand." (*Id.* at 13-14.) To the extent that IP Learn now postulates a two-level taxonomy, then, many of the claims in the '486 family would have been anticipated by the SuccessMaker product.

Second, notwithstanding a reference in the specification to an alternate embodiment in which a line-item "can" be the second level in the taxonomy (*e.g.*, '486 patent at 3:56-57), all remaining references in the specification point to a system in which "line-items" operate at a fourth level, after "subject," "major-topic," and "minor-topic." That is how it is repeatedly used in the specification (*e.g.*, '486 patent at 3:47-55, 5:13-23, 6:53-67, 7:22-32, 8:7-17:38 & Figure 5), and each and every illustration and explanation in the specification operates under the assumption that "line-items" exist at a finer level of granularity than "subjects," "major-topics," and "minor-topics."

# 2. "analysis rules"

# (a) Saba's Proposed Construction:

"Rules (including relationship rules and prerequisite rules) that describe the relationships among areas of learning, where the areas of learning are classified according to a systemwide taxonomy (e.g., 'line-items,' 'minor topics,' 'major topics,' and/or 'subjects.')"

"Analysis rules," which also appears in a large number of IP Learn's asserted claims,<sup>4</sup> means a set of rules that set forth the relationships among areas of learning, where the areas of learning are classified according to a systemwide taxonomy. This definition is derived from the specifications of the '486, '909, and '973 patents.<sup>5</sup>

As with "line-item," the phrase "analysis rules" does not have an ordinary and customary meaning in the relevant field of computer-assisted learning. In addition, although the words "analysis" and "rules" have separate non-technical meanings, these words are so "broad and

<sup>&</sup>lt;sup>4</sup> See claims 1, 2, 13, 15, and 54 of the '486 patent and claims 1, 8, 11, 21, 23, and 29 of the '909 patent.

<sup>&</sup>lt;sup>5</sup> In addition, this definition applies regardless of the number of levels contained in the taxonomy, and regardless of whether they include "line-items." In other words, the construction of "analysis rules" is not in any way dependent on the construction of "line-item."

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amorphous that the scope of the claim language can be reconciled only with recourse to the writter
description." Bell Atlantic, 262 F.3d at 1269-70 (finding the claim term "mode" broad and
amorphous such that recourse to the specification was required). For example, there are seven
definitions for "analysis" in the Merriam-Webster Collegiate Dictionary, 10th Edition, a number of
which — in the absence of any guidance from the specification — could potentially apply $(e.g.,$
definition 1: "separation of a whole into its component parts"). (Chung Decl., Exh. 9, at 41-42.)
Further, although IP Learn offers a construction (discussed below) that appears to equate
"analysis" with "evaluation," there is no support, in dictionaries or otherwise, for the notion that
the ordinary and customary meaning of "analysis" is the same as "evaluation."

An examination of the specification reveals that the inventors of the '486 patent family gave a distinct and consistent meaning to the phrase "analysis rules." The specification discloses exactly two types of "analysis rules": "relationship rules" and "pre-requisite rules," both of which describe the relationships among areas of learning according to a taxonomy or hierarchy of areas of learning. (E.g., '486 patent at 6:30-51.) The relationship rules "define the relationship among different areas in the subject, such as the relationship among the line-items, the minortopics, the major-topics and the subject." (Id. at 6:56-59.) These rules are then applied to a student's test scores "to determine the student's understanding level in the subject." (Id. at 6:61-62.) For example, based on a student's test scores, relationship rules allow inferences to be made regarding "not only how well the student performs in a specific complexity level of a line-item, but also how well the student performs in a minor-topic, or a major-topic, or even the subject itself." (Id. at 7:28-32.) The patent specification offers some concrete examples of relationship rules — e.g., "[w]eak in algebra implies weak in geometry," or "weak in integers implies weak in fraction[s]" — that show how a student's proficiency level in one "line-item" (or "major-topic" or "minor-topic") can lead to inferences about that student's proficiency level in another "line-item," or in a "minor-topic" that encompasses that "line-item." (Id. at 8:7-31.) Based on these inferences, "recommendations" are "generated." (Id.)

"Pre-requisite rules" also describe the relationships among areas of learning, such as "lineitems," by placing them into a "complexity-hierarchy" and then applying this hierarchy to a

student's test results to "generate recommendations." (Id. at 9:45-53.) The complexity-hierarchy "describes the pre-requisites and the grade of mastery that a student achieves for each prerequisite before the student can advance to the next level of complexity. In order for the student to advance to a line-item, the student has to satisfy all of the pre-requisites of that line-item according to the complexity-hierarchy." (Id. at 10:3-8.) Thus, just like "relationship rules," the "pre-requisite rules" operate in the context of a regime in which areas of learning are systematically categorized and ranked according to a taxonomy. Similarly, both "relationship rules" and "pre-requisite rules" are applied to a student's test results in order to "generate recommendations." The difference is that whereas "relationship rules" permit "inferences" to be made about a student's proficiency in a category or subcategory of learning, "pre-requisite rules" set forth the conditions under which a student may advance from one category or subcategory of learning to the next.

These two types of rules are the only "analysis rules" disclosed by the specification in the '486 family, and each time the phrase "analysis rules" is used in either the specification or the claims, it is always consistent with one or both of these types. Thus, even though the patent does not set forth the meaning of "analysis rules" in "explicit definitional format," the specification has defined the phrase "by implication." *Bell Atlantic*, 262 F.3d at 1271. Every single embodiment disclosed in the specification uses the phrase in accordance with the foregoing meaning — there is no "varied use" of the phrase — and so the fact that "analysis rules" is defined in a series of preferred embodiments rather than in "explicit definitional format" is immaterial. *Id.* at 1273; see also Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1466 (Fed. Cir. 1998) (refuting the contention that what appears in a preferred embodiment is "irrelevant to the correct meaning of claim limitations").

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#### **(b) IP Learn's Responsive Construction:**

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#### "rules used for evaluation"

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As with "line-item," IP Learn's construction of "analysis rules" is so broad and amorphous as to require a construction of its own. Indeed, it imports a word — "evaluation" — that finds no support anywhere in the language of the claims, the specification, or in the prosecution history.

Additionally, as mentioned above, Saba has not found any dictionary definition of "analysis" that equates it with the word "evaluation."

More important, IP Learn's proposed construction effectively ignores the definition set forth in the specification. It fails to account for the fact that the "analysis rules" in the alleged invention operate in the context of a systemwide classification of categories and subcategories of areas of learning, setting forth the relationships between these categories and subcategories. As a result, it cannot be correct.

# 3. "recommendation generator" / "generate a recommendation"

#### (a) Saba's Proposed Construction:

"To produce (or a system component that produces) suggestions for enhancing a student's understanding in a tested subject, as a result of the application of analysis rules (as defined herein) to a student's test scores."

In the context of the '486 patent family, "recommendation generator" (or "generate a recommendation") refers to a system component that produces suggestions for further study, based on the application of "analysis rules" to test results. This phrase appears in 16 of the asserted claims against Saba.<sup>6</sup>

There appears to be little argument that "recommendation" is synonymous with "suggest" or "suggestion." (*See* IP Learn's Proposed Claim Terms and Claim Elements for Construction (Chung Decl., Exh. 8) at 2:4-5.) In addition, "generate" means "beget," or "produce," according to Merriam-Webster's Collegiate Dictionary, 10th Edition, (which defines "generate" as "to bring into existence: as **a**: PROCREATE, BEGET **b**: to originate by a vital, chemical, or physical process: PRODUCE"). (Chung Decl., Exh. 9, at 485.) The issue appears to be what these words mean when they are combined together into a phrase like "recommendation generator," particularly as this phrase is used in the claims of the patents at issue. As with "line-item" and "analysis rules," the phrase "recommendation generator" has no ordinary or customary meaning, and it is apparent from a review of the '486 family that this phrase has a unique meaning in the patents that is not apparent

<sup>&</sup>lt;sup>6</sup> See claims 1, 2, 13, 15, 19, 50, and 54 of the '486 patent, claims 1, 21, 23, and 29 of the '909 patent, and claims 1, 19, 23, 24, and 26 of the '973 patent.

from a combination of the two words alone. Saba's proposed construction reads the phrase in light of the rest of the claim language and specification to make clear *how* the recommendations are being generated (*i.e.*, by applying "analysis rules" to test scores) and for what *purpose* (*i.e.*, to enhance a student's understanding in the tested subject).

First, the claims in the '486 and '909 patents explicitly state that the "recommendation generator" operates by applying "analysis rules" to test results. For example, claim 1 of the '486 patent sets forth the step of using "analysis rules" to analyze a "student's prior-to-the-latest and the latest test results," as part of the "recommendation generator." Each iteration of "recommendation generator" or "generate a recommendation" in the claims describes, or is consistent with, this operation of applying analysis rules to test scores. In addition, the language of the specification affirmatively supports this construction by explaining the "recommendation generator" *solely* in terms of applying "analysis rules" (including "relationship rules" and "prerequisite rules") to test results. (*See* '486 patent at 6:30-51.)

Second, the claims also set forth the concept of enhancing a student's understanding in the tested subject. The recommendation "provides an assessment on the student's understanding in the subject." (*E.g.*, '486 patent, claim 1.) This portion of the claim language explicitly equates "recommendation" with "assessment," which makes little sense on a semantic level, given that a recommendation is supposed to be based *on* an assessment, not to serve the purpose of *providing* an assessment. It makes more sense, however, when read in light of the specification, which explains that the purpose of generating recommendations, reports, and questions, is to assess *and enhance* the student's understanding in the tested subject. (*Id.* at 1:65-3:9.)

In short, Saba's proposed construction provides appropriate boundaries to the dictionary meaning of the constituent words in the phrase "recommendation generator," and this clarification comes directly from the claim language in the '486 and '909 patents, as well as the specification.

The asserted claims of the '973 patent provide the same boundaries, except that they do not explicitly contain the phrase "analysis rules." Nevertheless, the construction of "recommendation generator" and "generate a recommendation" should be the same for the '973 patent, for two interrelated reasons: first, the specification in the '973 patent is exactly the same as in the '486 and

'909 patents, and it describes the "recommendation generator" *solely* in terms of applying "analysis rules" to test results, just as it does in the '486 and '909 patents (*see* '973 patent at 6:36-58); second, the '973 patent merely replaces each reference to "analysis rules" in the claims with the phrase, "analyzing, by a first computing device that can access a network" (*see e.g.*, claims 1, 23, 24). Thus, it is apparent that the claims of the '973 patent continue to apply the same type of "analysis" to test results — it is just that the "rules" containing such analysis are explicitly stored on a networked computer.<sup>7</sup>

# (b) IP Learn's Responsive Construction:

## a "module that suggests a course of action"

On its face, IP Learn's construction is not necessarily inconsistent with Saba's, but it is simultaneously both incomplete and too open-ended. It is incomplete in that it seems to ignore the plain meaning of the word "generator" and instead introduces a foreign and broader term, "module," that is even *more* amorphous and that has no support in the language of either the claims or the specification. IP Learn's construction is too open-ended in that it does not set any meaningful boundaries or parameters for what it means by "course of action." Although Saba's construction above is consonant with "suggest[ing] a course of action," it explains the definition of the phrase "recommendation generator," based directly on the claim language and the language of the specification. IP Learn's construction, by contrast, seems to ignore the claim language and the specification.

<sup>&</sup>lt;sup>7</sup> Moreover, the claims of the '973 patent continue to retain references to "relationship rules" and "prerequisite rules." (*E.g.*, claim 19.)

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4. "report generator configured to . . . generate a report . . . based on the recommendation . . . and based on the report format"

# (a) Saba's Proposed Construction:

"Producing (or a system component that produces) a report, using a specified format, which contains suggestions for enhancing a student's understanding in a tested subject, as a result of the application of analysis rules to a student's test scores."

This "report generator" phrase, and its variants ("report generator . . . for . . . generating a report, based on the recommendation and the report format"; "generating a report, based on the recommendation and the report format" and "generating a report . . . based on the recommendation . . . and based on the report format"), follows directly on the "recommendation generator" phrase contained in the '486, '909, and '973 patents. In each instance, the "report" is "generated" as a result of the "recommendation" that has been generated. Consequently, Saba's proposed construction of "report generator" tracks its proposed construction of "recommendation generator" and is based on the same reasoning set forth above.

# (b) IP Learn's Responsive Construction:

# a "module that produces a report"

For exactly the same reasons that Saba's proposed construction of "recommendation generator" is preferable to IP Learn's, Saba's proposed construction of "report generator" is preferable to IP Learn's.

#### III. THE '448 PATENT

# A. The Alleged Invention: The '448 Patent Claims a Method and System for Searching a Database of Documents by Job Position

The '448 patent relates to a computer-aided method and apparatus for identifying and retrieving learning materials for a job position. The claimed system accomplishes this by "searching," by job position, a database of "documents"; "extracting" some of those documents "to be the learning materials"; and organizing those extracted documents according to a set of "rules." The focus of this patent, evident even in its title, is on locating learning materials for a "job position" — the objective of the claimed apparatus is to locate, extract, and present documents necessary to teach a user the skills necessary to succeed in a particular job position.

#### B. Interpretation of the Claim Language

1. "searching at least some of the documents to extract more than one documents to be the learning materials"

and:

"at least some of the documents are searched to extract more than one documents to be the learning materials"

#### (a) Saba's Proposed Construction:

"Searching, by job position, a database of documents and extracting the appropriate documents to be the learning materials for that job position."

The phrases "searching at least some of the documents to extract more than one documents to be the learning materials" and "at least some of the documents are searched to extract more than one documents to be the learning materials" in claims 1 and 35 refer to searching, by job position, a database of documents and extracting the appropriate documents from this database to be the learning materials for that job position.

This construction clarifies two aspects of the claim language: (1) that the "documents" that are searched and extracted under the claimed invention are the same as the "documents" that may be used as "learning materials"; and (2) that the searching and the extracting are done by job position. Both these clarifications flow from the claim language itself, and are consistent with the specification and prosecution history.

The claim language makes clear that the searching and extracting in question take place against the "documents" that may potentially be the learning materials. Claim 1 refers to "searching . . . the documents to extract . . . documents to be the learning materials." Claim 35 likewise indicates that "documents are searched to extract . . . documents to be the learning materials." In addition, the claim language states that "at least some of the learning materials are from the company documents," and that it is these "documents" that are categorized, searched, extracted, and organized. (*See id.*, claims 1 & 35.)

The specification further supports the foregoing construction, explaining how a "company database" can be used to store the "documents" that are to be "used as learning materials for the user." ('448 patent at 7:10-34; Figures 9 & 13.) Each embodiment disclosed in the specification

is consistent with the notion that the learning materials are "documents" that are searched by the user, and that these "documents" are stored in a centralized "database." (*Id.*)

The patent also makes clear that the claimed method and apparatus are organized around the principle of a "job position." This principle is discussed in detail in the '448 specification, at column 2, lines 17-67. Each job position within a company has certain responsibilities (*e.g.*, setting up an electronic mailing system). (*Id.* at 2:10-23.) Performing these responsibilities requires certain levels of knowledge. (*Id.* at 2:33-41.) The claimed apparatus is directed at identifying learning materials (documents from a database, discussed above) necessary to attain those levels of knowledge, to prepare the user for the responsibilities of a particular job position.

The invention therefore claims a specific form of user education: it does not claim general education (*e.g.*, "I want to be better at managing conflicts"), but rather education particular to specific job positions (*e.g.*, "I want to learn to be a Systems Analyst"). This focus is made plain in the claim language. Claim 1 indicates that "learning materials" are materials that help "the user learn about one or more jobs." (*Id.* at 11:50-52.) "One or more jobs" is presented in Claim 1 as a subset of "job position." (*Id.* at 11:48-49.) Claim 35 likewise makes clear that the extracted documents are "based on a job position." (*Id.* at 13:58.) The searching and extracting claimed by the '448 patent is therefore directed toward locating learning materials for "job positions."

#### (b) IP Learn's Response:

"Searching at least some of the documents' means 'electronically searching some of the documents."

IP Learn apparently concedes the accuracy of Saba's construction of the phrase "to extract more than one documents to be the learning materials," as it does not even provide a responsive construction on this phrase. Instead, IP Learn offers a minimal gloss on the word "searching." IP Learn's construction clarifies that "searching" refers to "electronic searching." Saba's construction clarifies, consistent with the claim language, that the "searching" in question is done by job position and occurs against a database of documents which may become the learning materials.

#### IV. THE '556 PATENT

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A. The Alleged Invention: The '556 Patent Claims a Method and System for Supplying Learning Materials to Learners in Exchange for Access to Those Learners' Personal Information

The '556 patent claims a method and system whereby an "institute user" pays money to access personal information about a "learning user," and the "learning user" gets access to "materials to learn."

The '556 patent is fundamentally directed at shifting the costs of "materials to learn" from the user doing the learning (the "learning user") to an organization, such as an employer (the "institute user"). To effectuate this cost shifting, the institute user pays for access to "materials regarding a learning user," including information concerning the user or the user's interest in a particular product of the institute user.

## B. Interpretation of the Claim Language

1. "the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials to learn"

#### and:

"the institute user pays so that materials can be accessed...a learning user is allowed to access materials to learn"

#### (a) Saba's Proposed Construction:

"An organization pays an access fee in order to obtain personal information regarding an individual user (such as the individual user's name, contact information, educational background, work experience, work preferences, and learning preferences), and the individual user allows access to this personal information so as to receive access to learning materials."

None of the key constituent components of the phrase at issue — "institute user," "learning user," or "materials regarding the at least one learning user" — has an ordinary and customary meaning in the field of computer-aided learning. A thorough review of the claim language and the specification indicates that the phrase "the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials to learn" in claims 1 and 25, and the phrase "the institute user pays so that materials can be accessed . . . a learning user is

allowed to access materials to learn" in claim 53, claim a system in which an organization pays an access fee in order to obtain personal information regarding an individual user (such as the individual user's name, contact information, educational background, work experience, work preferences, and learning preferences), and an individual user allows access to this personal information so as to receive access to learning materials.<sup>8</sup>

This construction clarifies a critical aspect of the claim language: what each party gives up and what it gets in return. The claims state that the learning user and institute user give, and get, different things: the learning user gives up his or her personal information for "materials to learn," whereas the institute user pays money for "materials regarding at least one learning user." Both Claim 1 and Claim 25 indicate that "the institute user can learn about the at least one learning user in an area the institute user is interested" and that "the institute user pays to access *materials* regarding the at least one learning user." (See '556 patent at 12:65-67, 13:4-5, 14:23-25 & 14:30-32 (emphasis added).) Claim 53 likewise provides that the institute user: "access[es] materials regarding at least one learning user," "pays so that [such] materials can be accessed," and "can learn about the at least one learning user in an area the institute user is interested." (Id. at 17:27-38.)

In other words, the word "materials" in the two phrases, "materials regarding the at least one learning user" and "materials to learn," carries distinct meanings, and it is the *former* that the institute user "pays" for, not the latter. Even in those embodiments discussed in the specification in which the institute user's payment of the access fee ends up subsidizing the learning user's receipt of "materials to learn," it is clear that the institute user is paying for "materials regarding the . . . learning user":

To encourage learning users to learn, they do not have to pay much to learn. If possible, money should not be a factor that deters users to learn from the apparatus. On the other hand, institute users have to pay significantly more than the learning users to access

<sup>&</sup>lt;sup>8</sup> This construction represents a slight modification of Saba's original construction. Under the language of two dependent claims, the learning user may "work for" the institute user. *See* claims 54 & 73. The construction advanced in this brief therefore omits the phrase "who is not a part of the organization," present in the construction filed on December 4, 2002.

information from the apparatus. In one embodiment, it is free for the learning users to access information regarding learning materials, but *institute users have to pay to access information regarding learning users* from the apparatus.

(*Id.* at 3:31-39.) Indeed, there appears to be no other consistent way to distinguish the "learning user" from the "institute user." The specification makes it clear that many different persons or entities can occupy either role, (*see id.* at 4:14-29), and even that the same "user" can occupy *both* user roles (*see id.* at 9:4-5). In addition, the specification discloses that in certain embodiments, the learning user also "pays" to access "materials" — it is just that he or she can "pay significantly less" than the institute user. (*Id.* at 9:10-12.) Thus, under the plain language of the specification, the primary distinction between the two roles appears to be in terms of what each type "pays" for.

The patent further makes clear that the "materials regarding the at least one learning user" that the institute user pays for includes personal information about the learning user. Because the claim language, on its own, does not indicate what the scope of "materials regarding the at least one learning user" is, resort to the specification is necessary. Vitronics, 90 F.3d at 1582. The specification explains that the information that the institute user is interested is the learning user's personal "profile" information (see id. at 4:40-5:20 & Fig. 4), and this is included in Saba's proposed construction, almost word-for-word, as "personal information regarding an individual user (such as the individual user's name, contact information, educational background, work experience, work preferences, and learning preferences)." The specification outlines the following business model: Learning User is interested in a job in Institute User's industry, which necessitates learning a certain skill set. Learning User obtains training materials in this skill set from Learning Provider ("materials to learn") for less than he or she would otherwise need to pay, and in exchange provides, or allows access to, personal information ("materials regarding the . . . learning user"), such as details of his work experience, his interests, etc. Institute User pays for access to this personal information to Learning Provider. Learning Provider uses Institute User's payment to offset the costs of the learning materials it provides to Learning User. Saba's construction flows naturally from this business model described in the specification.

#### (b) IP Learn's Response:

"Learning user' means 'user that is interested in engaging in learning activities."

"Institute user' means 'enterprise, organization or individual that is interested in monitoring learning users."

"Pays' means 'compensates."

While IP Learn did not provide a responsive construction of the entire phrase at issue, it did provide a construction for "learning user," "institute user," and "pays." As a result, it appears that IP Learn is conceding Saba's position with respect to the construction of "materials regarding the at least one learning user" and "materials to learn." IP Learn's limited construction posits that the learning user is the party interested in engaging in learning activities and the institute user is the party that is interested in monitoring learning users. This is consistent with Saba's construction, which provides necessary clarification of the division of payment involved — namely, that the learning user pays for "materials to learn" and the institute user pays for "materials regarding a learning user." Saba therefore essentially agrees with IP Learn's construction, such as it is, provided that the "monitoring" in which the institute user engages (*i.e.*, the "materials regarding the . . . learning user" it purchases) includes the disclosure of personal information regarding the learning user.

Notwithstanding IP Learn's apparent acquiescence in Saba's proposed construction of "materials regarding the . . . learning user," IP Learn may nonetheless contend that "materials regarding the . . . learning user" need not include "personal information," as defined in Saba's construction, and may simply include information concerning the learning user's progress on the learning materials. Such a construction would therefore cover the following business model: Learning Provider sells a product that enables Learning User to learn and Institute User to monitor the progress of Learning User's learning.

Such a construction ignores the language of the specification regarding the information sought by the "institute user." (*See* '556 patent at 4:40-5:20 & Fig. 4.) Moreover, such a construction would plainly read on a wide range of prior art, including numerous references

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disclosed by IP Learn in the prosecution history. For example, in the "SuccessMaker
Courseware" brochure, which was disclosed to the patent examiner, the software product was
sold to schools, 10 and it taught students "the fundamentals of math, reading, writing, and science,"
while allowing the school to "manage student portfolios, and continuously monitor progress."
(Chung Decl., Exh. 13, at 3 (emphasis added)). Similarly, the "Asymetrix Librarian" reference
cited in the '556 patent described software in which learning users could take lessons via web
browsers and be monitored by administrators. (Chung Decl., Exh. 14.)

As a consequence, the "materials regarding a learning user" that an institute user "pays" for must include *more* than just information regarding the learning user's progress in the learning materials — it needs to include the personal "profile" information described in the specification. (*E.g.*, 4:40-5:20; Figure 4, *supra*.) Any other construction would lead to an overbroad invention that reads directly on the prior art. To preserve the validity of the '556 patent, this Court should reject such a construction in favor of Saba's more limited construction. *See*, *e.g.*, *ACS Hospital*, 732 F.2d at 1577; *Harris Corp*. 114 F.3d at 1153 ("[C]laims should be read in a way that avoids ensnaring prior art if it is possible to do so.").

<sup>&</sup>lt;sup>9</sup> Moreover, because the specification states that the learning user and the institute user can be the same entity ('556 patent at 9:3-5.), this broad construction would read on *any* educational software, as such software inevitably would provide a user with learning materials, as well as a means of monitoring his or her own progress. *See*, *e.g.*, Guide to Selecting Software, PC Novice (discussing various self-study educational software offerings); High School Learning and Resource Library by ProOne (same) (both cited in the '556 patent file history (Chung Decl., Exhs. 11 & 12)).

<sup>&</sup>lt;sup>10</sup> Schools are expressly included within the definition of "institute user" in the specification. (*Id.* at 4:30-33.)

1	CONCLUSION		
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3	In summary, Saba respectfully requests that the Court construe the foregoing claim terms and phrases in accordance with the principles stated herein.		
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5	Dated: January 6, 2003		
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